Palomar Amateur Radio Club

SCOPE Newsletter

February 2024 General Meeting

Presentation by Dick Norton, N6AA

Please join us at 19:00 on Wednesday, February 7tthfor pre-meeting social time

19:30 for the start of the meeting, club announcements, followed by our program

PLEASE NOTE – NEW LOCATION FOR THIS MEETING ONLY!
CARLSBAD SENIOR CENTER
ROOM 100
799 PINE ST. CARLSBAD CA 92008

Join us in-person or via zoom link below!
The Zoom link is:

Meet Dick Norton, N6AA

Dick Norton, N6AA, was first licensed in 1955 as KN2PHF. Initially active in traffic nets and DXing, he is today an active contester where he operates in CQ and ARRL World-Wide DX contests. He has operated from all of the 40 zones. Through his hobby, he has seen the world and met with amateurs from all corners of the globe. He has spoken frequently at Dayton, and Visalia to name only two of his many speaking engagements.

Dick Norton, N6AA, is a well-known figure in the world of amateur radio. He has been an active ham radio operator for over 50 years and has served in a variety of leadership roles within the amateur radio community. In addition to his own radio activities, Norton has also been involved in the organization of many high-profile radio events, including the World Radiosport Team Championship (WRTC). Norton's contributions to the amateur radio community have been recognized with numerous awards and honors over the years. He is a member of the CQ Contest Hall of Fame, among other accolades.

Senior Center, 799 Pine St. Carlsbad, CA. You may also attend by Zoom on the PARC link: https://zoom.us/j/98736897490 / Meeting ID: 987 3689 7490/ Passcode: 001960. The doors open at 7:00PM; the presentation starts at 7:30. Coffee and donuts will be served.

President's Report

Hello again fellow HAMs and welcome to 2024! I missed giving you a report last month, so here's a quick joke for your new year. What do you call an apology written in dots and lines? .. A Re-morse Code! **Please be sure to note the venue change for this month!** The city asked us to change venue due to another group needing the space longer on their existing reservation. We will also get a sign at the door, the new venue is only two blocks away from the normal spot. We plan to be back in our

February is the club's birthday! founded in February of 1936, that makes PARC 88 years old! Come to the meeting for cake and help us celebrate.

Thanks and 73 de K6JPE

Presidential Trivia

In honor of Presidents Day, here is some Presidential Trivia. The answers are a the bottom of the issue.

1. Who was the first American-born president?
2. Which president made Christmas a national holiday?
3. “Old Whitey” was the beloved horse of which president?
4. Which president was a classically trained pianist and played 4 other instruments?
5. Who was the first and only U.S. president to serve non-consecutive terms?
6. Which president signed the act creating the United States Marine Band?
7. Which president and his wife attended Napoleon‘s coronation at Notre Dame Cathedral?
8. Who was the first president to have written a biography of another president?
9. Which president had turned down offers to play professional football?
10. Who was the first president to attend baseball’s opening day and throw the ceremonial first pitch?
11. Which president and his wife received a Siamese cat as a gift from the American consul of Bangkok?
12. Which president was often mocked in the press for his unkempt appearance?
13. Which president hired Louis C. Tiffany—first design director of Tiffany and Co.—for a massive renovation of the White House and its private chambers?
14. Though three presidents (Adams, Jefferson, and Monroe) died on the 4th of July, which president was the only president to have been born on that date?
15. Which president and his wife met in the fifth grade, were high school sweethearts, but did not marry until their mid-thirties? (Bonus

Question: What did his middle initial stand for?)

16. Which president hated his painted portrait so much that he eventually burned it?
17. Which president put up the first Christmas tree in the White House?
18. Which president donated all of his presidential salary (and his congressional salary before that) to charity?
19. Which president and his wife hold the record for longest married first couple? (Bonus Question: Who is the second longest married presidential couple?)
20. Who was the first president to ride in a car to his inauguration?

Answers at the bottom of the issue.

Membership Report

Please keep an eye on your email for direct updates from your Membership Chair, Glen AI6RR, for updates about your individual membership status and renewal dates. You can always reach out to him directly or Check Your Membership on the website.

Dear PARC members,

Having club members setup recurring payments in PayPal, also known as 'subscriptions' and 'auto renewals', has been helpful to PARC in reducing the workload for the Membership Chair Person. However, it has created new challenges to the club. For example, if the club member does not keep their PayPal account funded (eg; having a valid and current credit card on file there or having an adequate balance on their account), then the attempt by PayPal to bill your account will fail.

If a club member does not remember that they have this auto-renewal subscription setup and they complain to PayPal when the payment happens, then the club has to immediately refund that payment to avoid a significant penalty fee (was $25 last time) and of course that damages the club's standing as a 'business' within PayPal.

Please check your PayPal account to determine if you have auto-renewal setup (it may currently be called a 'subscription profile'). If you don't want it, please 'cancel' it. Ensure that you have a valid and current credit card on file with PayPal or that you keep an adequate balance on your account. Please check to see that you do not have mulitple / duplicate Auto-Renewal

profiles. We try to recognize these and will alert you if we see them.

IF YOU HAVE ANY ISSUE WITH AN AUTO-RENEWAL PAYMENT/BILLING FROM PARC, PLEASE CONTACT THE CLUB via TREASURER@palomararc.org or BOARD@palomararc.org or MEMBERSHPCHAIR@palomararc.org BEFORE FILING A COMPLAINT WITH PayPal.

Thanks and 73,
PARC Membership Chair
PARC Treasurer
PARC Board of Directors

ORI Update

Michelle Thompson

Greetings all!

Here's a high-level summary of the R&D work going on at ORI.
First, the most important thing. *Thank you to everyone that supports our work* and has stuck up for us out there in the communities we serve. It makes a big difference all across our organization.
Here are recent highlights from our largest projects.

Haifuraiya: Our open source GEO/HEO communications system. Current work includes the following.

1) Stitching the Theseus Cores polyphase filter bank into the HDL reference design for the ADRV9009. This is receiver side work and will involve incorporating additional blocks from Suoto's excellent fpga_cores repository.

2) Porting the ADRV9371 transmit side DVB-S2 encoder to the ADRV9009. We will transition from synthesized frames to live data.

3) Weekly (recorded and published) meetings have resumed. These are currently held at 1000 US Pacific, but we are looking at moving it back 2 hours to 0800 Pacific for more time zones to participate. These meetings are in the Weekly Reports playlist at https://www.youtube.com/watch?v=EOaKTacd-DY&list=PLSfJ4B57S8DkZry2dr5tS0YVff1opWZjA&ab_channel=OpenResearchInstituteInc.

4) We welcome two new volunteers, Ed and Shankar, to the team. On-boarding is ongoing and we look forward to their feedback on improving this process.

5) OSSAT Open Source Satellite Team from the UK has reached out about a presentation from ORI on our open source satellite work. We strongly support OSSAT's work. If you are unfamiliar with them, please visit https://www.opensourcesatellite.org/

6) ORI is an AMSAT-CA (Canada) technical partner and fully supports AMSAT-CA's efforts with ESA to explore an amateur GEO satellite that serves ESA countries. We are included in AMSAT-DL's planning. We have excellent communications with AMSAT-UK, who cited us in their ESA communications. We continue to support JAMSAT and have excellent communications and deep mutual respect.

Neptune: open source OFDM based physical layer link for drones and aerospace. Current work includes the following.

1) Weekly meetings (recorded and published) began in early January 2024 with an introduction and overview from team lead Leonard Dieguez.

2) Video series about how Neptune is using MATLAB HDL Coder to create HDL from Simulink models began in early January 2024. These designs are verified against Python models written by Andreas Schwarzinger, who wrote the Neptune physical layer specification (FlexLink). All work is published in the Neptune repository https://github.com/OpenResearchInstitute/Neptune and videos can be found at the playlist https://www.youtube.com/watch?v=xCTNW-q8Ud0&list=PLSfJ4B57S8DkV6_8IXzupoHfUlM8xC_Hp&ab_channel=OpenResearchInstituteInc.

3) We welcomed a new volunteer, Ed, to the team. If you'd like to work on Neptune, get in touch with Leonard Dieguez or any ORI board member.

RFBitBanger: open source HF QRP kit with resilient BOM and a new digital mode called SCAMP. Current work includes the following.

1) 100% of Batch 2 components have been received.
See https://youtube/t9a_Egh-grw?si=W0vcVC57pH6PCVLN for what unboxing of kit components looks like.

2) Kit build documentation has been updated.

3) Kitting has commenced and will rapidly progress to shipping.

4) Batch 2 extra kits will be on ORI's non-profit eBay account immediately after donors receive their direct mailed kits.

5) Skeds, recommended frequencies, and active discussion of SCAMP and the kit versions is on ORI Slack channel #rfbitbanger-talk.

Ribbit: resilient and reliable digital communications over any radio without wires or extra equipment. Current work includes the following.
1) Development team is working towards a PWA release with a defined header for every message.

2) Very positive reports of successful use in the field for humanitarian and recreational traffic.

3) Rattlegram accepted to the Apple App Store.
https://apps.apple.com/us/app/rattlegram/id1664526096

Aquaphage: open source bacteriophage to fight antibiotic resistance in fish farms.

1) A resumption of outreach to IPATH at UCSD was rebuffed (again), as IPATH is only interested in human subjects. However, they did recommend getting in touch with a particular professor that has published about bacteriophage. We will continue to (gently and persistently) try to get advice and activity going with IPATH while developing connections with researchers. Fish farming is extremely important to meeting nutritional needs worldwide. Improving fish farming directly benefits humanity.

2) There's growing interest at ORI in sequencing DNA for plants and publishing the results. Plants of little economic value are overlooked for DNA sequencing. We suspect there's tremendous potential here for some valuable basic research.

3) Aquaphage is actively looking for leads for projects in any area of biology. Get in touch with any board member to learn more about how to be involved.

https://www.openresearch.institute/board-of-directors/

FCC TAC: Open Research Institute served on the Federal Communications Commission Technological Advisory Committee when it resumed in 2022.

1) Keith Wheeler nominated Michelle Thompson to represent ORI for an upcoming 2 year term, to begin in 2024. MIchelle is currently in the vetting process.

2) ORI can nominate additional people to serve on FCC TAC. If you are eligible to serve, can commit to at least one working group (must be different from any other ORI representative's working group), and can attend weekly hour-long working group meetings, and are willing and able to participate in a collaborative recommendations process from your working group, then get in touch with Keith Wheeler (keith.m.wheeler@gmail.com) to be nominated to the FCC to represent ORI. We represent the interests of open source. We are also seen as representing amateur radio and amateur radio satellite services.

There are many other smaller projects at ORI and we celebrate their successes over the past year.

1) The Dumbbell compact HF antenna video at Ham Expo sparked a large amount of interest. This video summarized the prototype design, simulation, and build. Deployment of more antennas and an article is next steps.

2) Our regulatory work helped six projects in 2023 get past significant hurdles. Projects included teams in academic, commercial, and open source fields. A special thank you to YASME Foundation, who is reviewing a funding request so regulatory work can continue. ORI works with and recommends Thomsen and Burke law firm in Washington DC.

3) AmbaSat respin has been used in educational projects and pull request for updating to amateur bands and improving the power distribution on the picosat submitted to AmbaSat. This project

successfully concludes under budget, so a decision about what to do with the excess funds will need to be made by the board.

4) Battery Curve analysis resumes in a few weeks with a student intern from a local high school. We are very much looking forward to publishing these (delayed) results. This project is an attempt to document the successful NiCd battery pack construction and selection process from early AMSAT missions.

DEFCON: Our next major demonstration and exhibit will be at DEFCON32 held 8-11 August in Las Vegas, NV.

1) We need additional volunteers to staff the tables and run demonstrations. This will be in RF Village, a founding village at DEFCON. RF Village attracts many thousands of people over the course of the weekend, has its own speaking track, and its own contests. RF Village has been very supportive of ORI's open source showcase since ORI was founded nearly 5 years ago.

2) Aerospace Village is also interested, and we may split Neptune off to demonstrate there. This is entirely dependent on additional volunteers being available to staff an exhibit in parallel.

We believe that ORI is one of the most active open source digital radio organizations in the world. We do technical and regulatory work with very high returns of both investment and increased community capabilty. Amateur radio is a primary beneficiary of what we do. Our style is quick, quiet, and competent support.

However, there are things we do not do well: self-promotion, greed, and unethical behavior.

Believe it or not, a commitment to being supportive, collaborative, and ethical can put you at a big disadvantage when compared to individuals and organizations that cut corners, refuse to share credit, lie, cheat, bribe, bully, or steal. We believe that long term, ethical and kind behavior will win. Kindness really is contagious - it just has a long incubation period.

If you would like to see ORI continue to succeed, please share your opinions, help get coverage of what we do, and support our work.

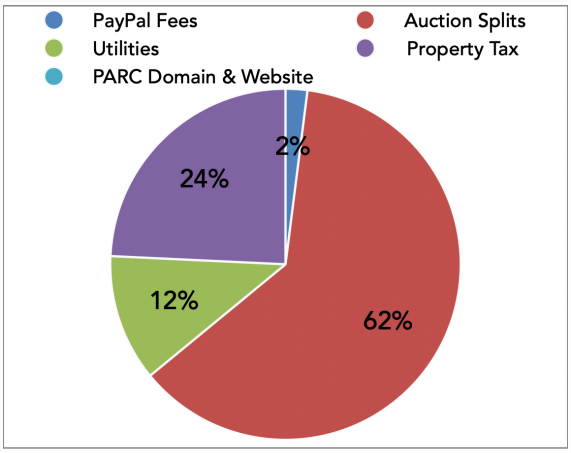
Comment and critique welcome and encouraged.

(Looking forward to our "birthday" celebrations on 6 March 2024!)
-Michelle Thompson

Financial Report

Palomar Amateur Radio Club
Statement of Activity by Month
12/1/2023 - 12/31/2023

	12/31/2023	Total
Revenue		
PayPal Sales	525.00	525.00
Interest	0.48	0.48
Total Revenue	$ 525.48	$ 525.48
Gross Profit	$ 525.48	$ 525.48
Expenditures		
PayPal Fees	25.65	25.65
Auction Splits	792.00	792.00
Utilities	149.26	149.26
Property Tax	309.58	309.58
PARC Domain & Website	17.99	17.99
Total Expenditures	$ 1,294.48	$ 1,294.48
Net Operating Revenue	-$ 769.00	-$ 769.00
Net Revenue	-$ 769.00	-$ 769.00



PARC Expenses December 2023

Presidential Trivia Answers

1. Martin Van Buren
2. Ulysses S. Grant
3. Zachary Taylor

4. Richard Nixon
5. Grover Cleaved
6. John Adams
7.James Monroe
8.Herbert Hover
9. Gerald Ford
10. William Howard Taft
11. Rutherford B. Hays
12. Abraham Lincoln
13. Chester A. Arthur
14. Calvin Coolidge
15. Harry S. Truman (Bonus Answer: Nothing)
16. Theodore Roosevelt
17. Benjamin Harrison
18. John F. Kennedy
19. Jimmy and Rosalynn Carter (Bonus Answer: George & Barbara Bush)
20. Warren G. Harding

Your Board of Directors

Call Sign.	Name.	Position
K6JPE	Joe	President
KD9LF	Chris	Vice-President
W6TQS	Jim	Secretary
K2VO	Jim	Treasurer
KN6WNN	David	*Membership Chair*
AJ6FQ	Ron	Director #1
W6XM	John	Director #2
KM6CXW	Keith	*Scope Editor*
KF6WTN	Mark	*Repeater Chair*
		Site Chair

Member Satisfaction Survey

Badge/Nametags

Nametags can be ordered again! Please fill out the form found below, you will be contacted for payment.
https://www.palomararc.org/parc-badge-order-form

Swag

Joe K6JPE has been sporting PARC branded swag for a few months now, here's the link to order your own!
https://stores.goldmedalideas.com/palomar_amateur_radio_club

Scope Articles/Content

Please submit articles or content to scope@palomararc.org if you have done something interesting please share with us!
We'd love to see your HAM shacks, mobile rigs, hiking rigs, stories about your hikes or expeditions, anything you think other club members may be interested in reading about.

Donate

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